140. The separation block according to claim 120, wherein the device is configured to permit an electrospray of fluid at a flow rate of greater than about 2 μL/minute.

141. The separation block according to claim 120, wherein the flow rate is from about 2 μL/minute to about 1 mL/minute.

142. The separation block according to claim 120, wherein the electrospray device density in the array exceeds about 5 devices/cm^2.

143. The separation block according to claim 120, wherein the electrospray device density in the array exceeds about 16 devices/cm^2.

144. The separation block according to claim 120, wherein the electrospray device density in the array exceeds about 30 devices/cm^2.

145. The separation block according to claim 120, wherein the electrospray device density in the array exceeds about 81 devices/cm^2.

146. The separation block according to claim 120, wherein the electrospray device density in the array is from about 30 devices/cm^2 to about 100 devices/cm^2.

147. The separation block according to claim 120, wherein said array is an integral monolith of said devices.

148. The separation block according to claim 120, wherein at least two of the devices are in fluid communication with different fluid streams.

149. The separation block according to claim 120, wherein at least one spray unit is configured to generate multiple electrospray plumes of fluid.

150. The separation block according to claim 120, wherein at least one of the electrospray devices is configured to generate a single combined electrospray plume of fluid.

151. The separation block according to claim 120, wherein at least one spray unit is configured to generate a single electrospray plume of fluid.

152. The separation block according to claim 120, wherein at least one spray unit is configured to generate multiple electrospray plumes of fluid which remain discrete.

153. The separation block according to claim 120, wherein the spacing on the ejection surface between adjacent devices is about 9 mm or less.

154. The separation block according to claim 120, wherein the spacing on the ejection surface between adjacent devices is about 4.5 mm or less.

155. The separation block according to claim 120, wherein the spacing on the ejection surface between adjacent devices is about 2.2 mm or less.

156. The separation block according to claim 120, wherein the spacing on the ejection surface between adjacent devices is about 1.1 mm or less.

157. The separation block according to claim 120, wherein the spacing on the ejection surface between adjacent devices is about 0.56 mm or less.

158. The separation block according to claim 120, wherein the spacing on the ejection surface between adjacent devices is about 0.28 mm or less.

159. The separation block according to claim 120, further comprising:

a device to receive fluid droplets/sprays of fluid from the exit orifice of the system of electrospray devices.

160. The separation block according to claim 159, wherein said device to receive fluid droplets/sprays comprises:

a daughter plate having a plurality of fluid receiving wells each positioned to receive fluid ejected from a respective one of the device exit orifices.

161. The separation block according to claim 159, wherein said device to receive fluid is a mass spectrometry device.

162. A separation block system comprising:

a plurality of separation blocks according to claim 117, wherein the separation blocks are stacked one upon the other and each of the plurality of exit orifices of a block above another are aligned with the corresponding one of the plurality of entrance orifices of the block below.

163. The system according to claim 162, wherein the separation material in one block has the same separation characteristics as the separation material in the other blocks.

164. The system according to claim 162, wherein the separation material in at least one block has different separation characteristics than the separation material in the other blocks.

165. The system according to claim 162, wherein the separation material in a first block effects an ion exchange separation and the separation material in a second block downstream of the first block effects a reversed-phase separation.

166. The system according to claim 162, wherein samples that are separated in the first separation block are separated by fractionation.

167. The system according to claim 166, wherein the method of fractionation is isocratic, step or gradient separation.

168. The system according to claim 162, wherein elution fractions from the first separation block are sequentially transferred to an array of different separation blocks.

169. The system according to claim 162, wherein the separation material comprises a porous polymer, polymer monolith, non-monolith polymer particles, particles containing a stationary phase, silica particles, non-porous silica, or silica particles encapsulated in a polymer matrix.

170. The system according to claim 162, wherein said separation comprises liquid chromatography, ion chromatography, affinity chromatography, capillary electrophoresis, or capillary electrochromatography.

171. A method for processing samples of fluid comprising:

passing at least one sample through a respective one of a first array of multiple through-substrate channels containing a first separation material suitable to effect chromatographic separation of analytes passing through the channel;

passing said at least one sample from said first array through a respective one of a second array of multiple through-substrate channels containing a second separation material having the same or different separation characteristics than said first separation material;

optionally repeating the previous step sequentially with one or a plurality of arrays of multiple through-substrate channels;

passing said at least one sample to corresponding entrance orifices of electrospray devices of the system of claim 48,

electrospraying the at least one sample;